



Department of
Toxic Substances
Control

*Preventing
environmental
damage from
hazardous waste,
and restoring
contaminated
sites for all
Californians.*



State of California



California
Environmental
Protection Agency

Fact Sheet, March 2006

Mercury-Added Switches and Relays in Consumer Products

Introduction

A new law banning the sale and distribution of certain mercury-added products has been passed with the following implementation dates:

July 1, 2006 – Use of mercury switches and mercury relays is banned; and

January 1, 2008 – Use of mercury diostats is banned.

This fact sheet provides some background information and definition to help understand the requirements of the new law. This fact sheet also lists the types of mercury products that are banned, describes which types of products are not banned, and describes what is required to request an exemption.

Background

Thermostats and other switches and relays are among the largest remaining sources of mercury in consumer products that can be legally sold in California. When these products are broken or disposed of, mercury can be released into the air or water and eventually make its way into streams, lakes and the ocean. It then can be taken up by plants, fish and wildlife, accumulating into higher concentrations as it moves up the food chain. There are currently many health advisories regarding consumption of fish, and mercury has become a significant health threat to humans and wildlife. It can damage the central nervous system, kidneys and liver, as well as contribute to birth defects.

Mercury-added thermostats were previously banned from sale or distribution beginning January 1, 2006, except for some industrial thermostats. To further address the problems caused by mercury in consumer products, the California Legislature recently passed Assembly Bill (AB) 1415 (Stats. 2005, ch. 578). AB 1415 bans the sale and distribution of some additional products containing mercury, but also provides certain exemptions from the ban.

What are mercury-added products, switches, and relays?

AB 1415 defines mercury-added products, switches and relays as follows.

Mercury-added product means any product or device that contains mercury.

Mercury-added thermostat means a product or device that uses a mercury switch to sense and control room temperature through communication with heating, ventilating, or air-conditioning equipment. A mercury-added thermostat includes thermostats used to sense and control room temperature in residential, commercial, industrial and other buildings but does not include a thermostat used to sense and control temperature as part of a manufacturing process.

Mercury diostat means a mercury switch that controls a gas valve in an oven or oven portion of a gas range (a "flame sensor").



Mercury relay means a mercury-added product or device that opens or closes electrical contacts to effect the operation of other devices in the same or another electrical circuit. 'Mercury relay' includes, but is not limited to, mercury displacement relays, mercury wetted reed relays, and mercury contact relays.

Mercury switch means a mercury-added product or device that opens or closes an electrical circuit or gas valve. This definition encompasses: mercury float switches (activated by rising or falling liquid levels), mercury tilt switches (activated by a change in the switch position), mercury pressure switches (activated by a change in pressure), mercury temperature switches (activated by a change in temperature), and mercury flame sensors. A mercury switch does not include a mercury-added thermostat or a mercury diostat.

What does the new law do and what are its requirements?

The new law bans the sale or distribution of the following list of new or refurbished mercury containing or mercury added products in California effective July 1, 2006. Its requirements are in California's Hazardous Waste Control Law in Chapter 6.5 of Division 20 of the Health and Safety Code (Health & Saf. Code), sections 25214.8.1 through 25214.8.6.

- Barometer;
- Esophageal dilator, bougie tube, or gastrointestinal tube;
- Flow meter;
- Hygrometer or psychrometer (original bill misspelled as psychometer);
- Manometer;
- Pyrometer;
- Sphygmomanometer (original bill misspelled as sphygmanometer);
- Thermometer;
- Mercury switch, individually or as a product component; and
- Mercury relay, individually or as a product component.

The new law also bans the sale or distribution of a mercury diostat, or a new or refurbished oven or gas range containing a mercury diostat effective January 1, 2008.

Manufacturers are required to have a program for managing end-of-life exempted mercury switches and relays. Manufacturers are also required to provide specified consumer information. The law provides for

confidentiality of trade secrets.

The Department of Toxic Substances Control (DTSC) is authorized to grant an exemption from the ban if certain conditions are met, but the exemptions are null and void if the manufacturer does not meet those conditions.

Which products are not banned?

The new law allows the sale and distribution of mercury-added products if any of the following apply.

- The product, switch, or relay is required under a federal law or federal contract specification.
- The only mercury-added component is a button cell battery.
- The switch or relay is used to replace a switch or relay that is a component of a larger product in use prior to July 1, 2006, and if one of the following applies:
 - the larger product is used in manufacturing; or
 - the switch or relay is integrated in and not physically separate from other components of the larger product.

How can I get an exemption?

DTSC is authorized to grant an exemption to a manufacturer that uses a switch or relay that contains less than 1 milligram of mercury, and that has notified DTSC of its plans to operate under an exemption and resubmits the notice every three years. The notices must be signed, dated, and include all specified information.

An exemption may also be granted for reselling a refurbished imaging and therapy system used for medical diagnostic purposes that includes a mercury switch or relay if the manufacturer provides all specified information in the notice and meets the following requirements:

- The mercury switch or relay is attached, and not physically separate from, other components of the larger product; and
- The larger product was initially manufactured prior to July 1, 2006.

Generally, an exemption may be granted if all of the following conditions are met:

- The exemption request describes the use of the product with supporting information that there is no technically feasible alternative, available at a reasonable cost;

- The supporting information shows that the product is eligible for the exemption; and
- The manufacturer or trade group requesting the exemption enters into a cost reimbursement agreement with DTSC for reviewing the exemption request.

What supporting information is required for an exemption?

When submitting a request for exemption, the manufacturer must provide all of the following supporting information to DTSC:

- The name of the manufacturer requesting the exemption, and the name and position of the manufacturer's contact person for all matters concerning the exemption. If a trade group is requesting an exemption, the names of the manufacturers represented by the trade group must be provided;
- A description of the product, and the use or uses of the product;
- A description of the mercury switch or relay, identification of the manufacturer and explanation of the function of the mercury switch or relay in the product;
- Information that shows there is no technically feasible alternative, available at a reasonable cost. This includes a description of past, current, and planned future efforts to seek or develop those alternatives, and a description of all alternatives that have been considered and explanations of why each alternative is not satisfactory;
- Information that clearly shows that the switch or relay or the product is constructed to prevent the release of mercury to the environment;
- A complete management plan for the product at the end of its useful life, including removal and management of the mercury switch or relay contained in the product. The plan should include education and outreach to users regarding collection opportunities and legal requirements for managing the product once it becomes a waste; and
- A copy of all similar exemption requests, including supporting documentation, submitted by the applicant to another state, and a copy of that state's response to the exemption request.

Manufacturers or trade groups must keep the exemption notice on file for as long as the mercury-added product is in use. They must renew their exemption

notice every three years. DTSC is required to provide copies of exemption notices to members of the public upon request, excluding any information that is DTSC determines is "trade secret."

Important: *When submitting the exemption notification to DTSC, the manufacturer or trade group must identify any information that is claimed to be trade secret.* DTSC will keep information confidential that the manufacturer or trade group identifies as trade secret and that meets the statutory definition of that term. (Health & Saf. Code § 25173)

DTSC is required to provide written notice of its decision on an exemption within 180 calendar days after receiving the request and determining that all necessary information has been received. Exemptions, however, are not considered granted if DTSC does not provide its decision within 180 days.

How will the new law be enforced?

DTSC enforces the law through inspection, record reviews, and enforcement authority that can result in administrative or civil penalties, or punishment as a misdemeanor. A toll-free telephone number (1-800-698-6942) is available to the public to report information about violations of hazardous waste laws or regulations.

Disclaimer

This fact sheet was prepared in November 2005 and is based on statutes and regulations in effect at that time. The reader should not rely solely on this fact sheet for regulatory compliance and should instead review the most current statutes and regulations.

For more information, contact the DTSC office nearest you.

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***Or call the regional Public and Business Liaisons at (800) 72-TOXIC (800-728-6942).
From outside California, call (916) 255-3545.***

or visit www.dtsc.ca.gov

Online Information

Text for Assembly Bill 1415 (Pavley) (Stats. 2005, ch. 578)

<http://www.leginfo.ca.gov/>

Northeast Waste Management Officials' Association's Mercury Reduction Program

<http://www.newmoa.org/Newmoa/htdocs/prevention/mercury/>

Contact: Terri Goldberg, tgoldberg@newmoa.org at (617) 367-8558 extension 302

Interstate Mercury Education & Reduction Clearinghouse

<http://www.newmoa.org/Newmoa/htdocs/prevention/mercury/imerc.cfm>

Contact: Terri Goldberg, tgoldberg@newmoa.org at (617) 367-8558 extension 302